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APR 13 2001

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SEQUENCE LISTING

131  
<110> LIVSHITS, VITALIY  
ZAKATAEVA, NATALIA  
ALESHIN, VLADIMIR  
BELAREVA, ALLA  
TOKHMAKOVA, IRINA

<120> NOVEL GENE AND METHOD FOR PRODUCING L-AMINO ACIDS

<130> 0010-1070-0

<140> 09/466,935

<141> 1999-12-20

<150> RU98123511

<151> 1998-12-23

<160> 4

<170> PatentIn version 3.0

<210> 1

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<212> DNA

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cta tgg att aaa gga cca aag cag atg aag gcg ctg aat aag att ttc				1120
Leu Trp Ile Lys Gly Pro Lys Gln Met Lys Ala Leu Asn Lys Ile Phe				
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ggc tcg ttg ttt atg ctg gtg gga gcg ctg tta gca tcg gcg agg cat				1168
Gly Ser Leu Phe Met Leu Val Gly Ala Leu Leu Ala Ser Ala Arg His				
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205				
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20	25	30		
Asn His Gly Tyr Pro Ala Gly Gly Val Tyr Cys Trp Ala Ser Asp Arg				
35	40	45		
Thr Gly Asp Ser Tyr Cys Ala Gly Trp Arg Gly Val Gly Thr Leu Phe				
50	55	60		
Ser Arg Ser Val Ile Ala Phe Glu Val Leu Lys Trp Ala Gly Ala Ala				
65	70	75	80	
Tyr Leu Ile Trp Leu Gly Ile Gln Gln Trp Arg Ala Ala Gly Ala Ile				
85	90	95		
Asp Leu Lys Ser Leu Ala Ser Thr Gln Ser Arg Arg His Leu Phe Gln				
100	105	110		

Arg Ala Val Phe Val Asn Leu Thr Asn Pro Lys Ser Ile Val Phe Leu  
115 120 125

Ala Ala Leu Phe Pro Gln Phe Ile Met Pro Gln Gln Pro Gln Leu Met  
130 135 140

Gln Tyr Ile Val Leu Gly Val Thr Thr Ile Val Val Asp Ile Ile Val  
145 150 155 160

Met Ile Gly Tyr Ala Thr Leu Ala Gln Arg Ile Ala Leu Trp Ile Lys  
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tagtcagcag cataaaaaag tgccagtatg aagactccgt aaacgtttcc cccgcgagtc 180  
aaatgt atg ttg atg tta ttt ctc acc gtc gcc atg gtg cac att gtg 228  
Met Leu Met Leu Phe Leu Thr Val Ala Met Val His Ile Val  
1 5 10  
gcg ctt atg agc ccc ggt ccc gat ttc ttt ttt gtc tct cag acc gct 276  
Ala Leu Met Ser Pro Gly Pro Asp Phe Phe Phe Val Ser Gln Thr Ala  
15 20 25 30  
gtc agt cgt tcc cgt aaa gaa gcg atg atg ggc gtg ctg ggc att acc 324

Val	Ser	Arg	Ser	Arg	Lys	Glu	Ala	Met	Met	Gly	Val	Leu	Gly	Ile	Thr	
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tgc	ggc	gta	atg	gtt	tgg	gct	ggg	att	gcg	ctg	ctt	ggc	ctg	cat	ttg	372
Cys	Gly	Val	Met	Val	Trp	Ala	Gly	Ile	Ala	Leu	Leu	Gly	Leu	His	Leu	
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			65				70					75				
ggc	ctg	tat	ctc	tgc	tgg	atg	ggc	tac	cag	atg	cta	cgt	ggc	gca	ctg	468
Gly	Leu	Tyr	Leu	Cys	Trp	Met	Gly	Tyr	Gln	Met	Leu	Arg	Gly	Ala	Leu	
			80			85					90					
aaa	aaa	gag	gcg	gtt	tct	gca	cct	gcg	cca	cag	gtc	gag	ctg	gcg	aaa	516
Lys	Lys	Glu	Ala	Val	Ser	Ala	Pro	Ala	Pro	Gln	Val	Glu	Leu	Ala	Lys	
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Ser	Gly	Arg	Ser	Phe	Leu	Lys	Gly	Leu	Leu	Thr	Asn	Leu	Ala	Asn	Pro	
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Lys	Ala	Ile	Ile	Tyr	Phe	Gly	Ser	Val	Phe	Ser	Leu	Phe	Val	Gly	Asp	
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aac	gtt	ggc	act	acc	gcg	gcg	tgg	ggc	att	ttt	gcg	ctg	atc	att	gtc	660
Asn	Val	Gly	Thr	Thr	Ala	Arg	Trp	Gly	Ile	Phe	Ala	Leu	Ile	Ile	Val	
			145				150					155				
gaa	acg	ctg	gcg	tgg	ttt	acc	gtc	gtt	gcc	agc	ctg	ttt	gcc	ctg	ccg	708
Glu	Thr	Leu	Ala	Trp	Phe	Thr	Val	Val	Ala	Ser	Leu	Phe	Ala	Leu	Pro	
			160			165					170					
caa	atg	gcg	cgt	ggc	tat	caa	cgt	ctg	gcg	aag	tgg	att	gat	ggc	ttt	756
Gln	Met	Arg	Arg	Gly	Tyr	Gln	Arg	Leu	Ala	Lys	Trp	Ile	Asp	Gly	Phe	
				175		180				185					190	
gcc	ggg	gcg	tta	ttt	gcc	gga	ttt	ggc	att	cat	ttg	att	att	tcg	cgg	804
Ala	Gly	Ala	Leu	Phe	Ala	Gly	Phe	Gly	Ile	His	Leu	Ile	Ile	Ser	Arg	
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 Arg Ser Arg Lys Glu Ala Met Met Gly Val Leu Gly Ile Thr Cys Gly  
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 Val Met Val Trp Ala Gly Ile Ala Leu Leu Gly Leu His Leu Ile Ile  
 50 55 60  
 Glu Lys Met Ala Trp Leu His Thr Leu Ile Met Val Gly Gly Gly Leu  
 65 70 75 80  
 Tyr Leu Cys Trp Met Gly Tyr Gln Met Leu Arg Gly Ala Leu Lys Lys  
 85 90 95  
 Glu Ala Val Ser Ala Pro Ala Pro Gln Val Glu Leu Ala Lys Ser Gly  
 100 105 110  
 Arg Ser Phe Leu Lys Gly Leu Leu Thr Asn Leu Ala Asn Pro Lys Ala  
 115 120 125  
 Ile Ile Tyr Phe Gly Ser Val Phe Ser Leu Phe Val Gly Asp Asn Val  
 130 135 140  
 Gly Thr Thr Ala Arg Trp Gly Ile Phe Ala Leu Ile Ile Val Glu Thr  
 145 150 155 160  
 Leu Ala Trp Phe Thr Val Val Ala Ser Leu Phe Ala Leu Pro Gln Met  
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 180 185 190  
 Ala Leu Phe Ala Gly Phe Gly Ile His Leu Ile Ile Ser Arg  
 195 200 205

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